Area-Based Audit of Forest Planning and Practices and Enforcement of the Forest Practices Code in a Portion of the Merritt Forest District

FPB/ARC/54

May 2003

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Report from the Board

A. Report from the Board

This is the Board's report on the area-based audit of licensee compliance with, and government's enforcement of, the *Forest Practices Code of British Columbia Act* and related regulations (the Code), relevant to forest and range planning and practices in the Allison-Mussezula draft landscape unit area within the Merritt Forest District (see map on page A-3).

The audit examined field activities and obligations of the following parties, for the period of July 1, 2001, to July 18, 2002, to determine compliance with Code requirements:

- Ardew Wood Products Ltd.
- Aspen Planers Ltd.
- Merritt Forest District district manager obligations
- Merritt Forest District Small Business Forest Enterprise Program (SBFEP)
- Nicola Pacific Forest Products Ltd
- Princeton Forest Products Ltd.
- Tolko Industries Ltd.
- Weyerhaeuser Company Ltd.
- three woodlot tenures

Fifteen range tenures in the audit area were also audited for practices involving riparian areas. Although Qwa'eet Forest Products Ltd. operates within the selected area, it was excluded from audit because it was the subject of a Board compliance audit in 2001, which found the company's forest planning and practices to be in compliance with the Code.

The audit also examined the appropriateness of government's enforcement of the Code, including planning, management direction and operational activities related to enforcement, for the same period. The activities of two Code enforcement agencies, the Ministry of Forests (MOF) and the Ministry of Water, Land and Air Protection (MWLAP) were reviewed. There were no activities within the audit area for which the Ministry of Energy and Mines had enforcement responsibilities.

The reports from the auditor (Parts C and D) provide further details on the location, the scope of the audits and the audit findings. The reports from the auditor in Part C are based on the audit procedures described in Part B.[i]

The Board considered the reports from the auditor along with supporting audit evidence, as well as responses to the auditor's reports from MOF and MWLAP. Based on this information, the Board affirms the audit reports and provides the following comment.

[i] Part B of this document provides background information on the Board's audit program and the process followed by the Board in preparing its report.

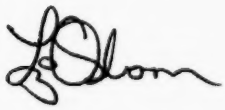
Overall, the Board is encouraged by the high level of compliance with the Code by licensees in the audit area. The forest licensees, woodlot licence holders, range tenure users, and SBFEP operations in the area were found to be in compliance with the Code in all significant respects. This high level of compliance is particularly commendable considering the large number of licensees that operate and were audited in the area.

The Board also finds that MOF's enforcement of the Code was appropriate in most instances. The auditor found two gaps in enforcement, described as significant weaknesses. Inspections were lacking for the MOF district manager's responsibilities and for low-risk operations of major licence holders. While no harm to the environment resulted during the audit period due to these gaps, the Board is concerned with the lack of fairness and consistency in application of the Code, and the potential for non-compliance to go undetected and result in environmental harm.

With the current restructuring of the SBFEP as BC Timber Sales (BCTS), and a separation from the MOF compliance and enforcement (C&E) branch, inspections of the BCTS aspect of the district manager responsibilities are expected to no longer be overlooked. The Board suggests that MOF also ensure that the district manager obligations that do not transfer to the BCTS operation and that remain as district office responsibilities also be inspected by an independent C&E branch.

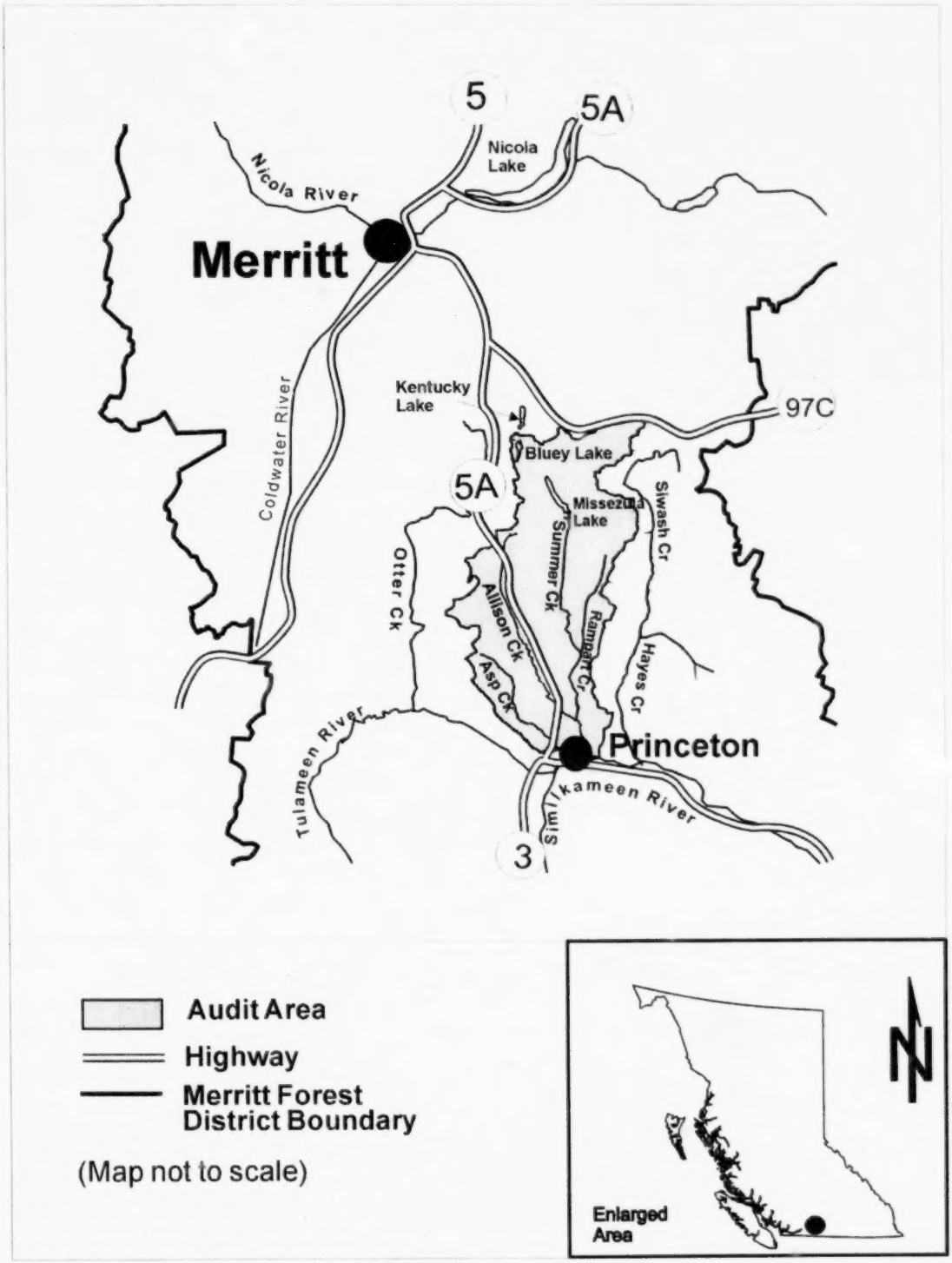
According to the auditor of record, approximately 50 percent of the major licence holders' cutblocks in the area were not inspected because they were classified as "lower risk." The Board recognizes that the district was appropriately focusing inspections on high-risk areas; however, the Board notes that lower-risk activities need to be evaluated periodically to verify their rating. The Board suggests the district inspect a sample of low-risk licensee operations, with the view to ongoing assessment and fine-tuning of the risk ranking. Despite these gaps, the MOF enforcement program functioned well.

In the audit of MWLAP enforcement, however, the auditor found that the ministry was not actively involved in Code enforcement within the audit area. MWLAP had not completed any compliance inspections and had not implemented effective joint compliance and enforcement processes with MOF. This conclusion is similar to findings in previous enforcement audits and is of concern to the Board. In the Board's view, MWLAP is not yet fulfilling its stated and legislated intent to be involved in Code enforcement. The Board will continue to assess MWLAP's enforcement role in subsequent audits.

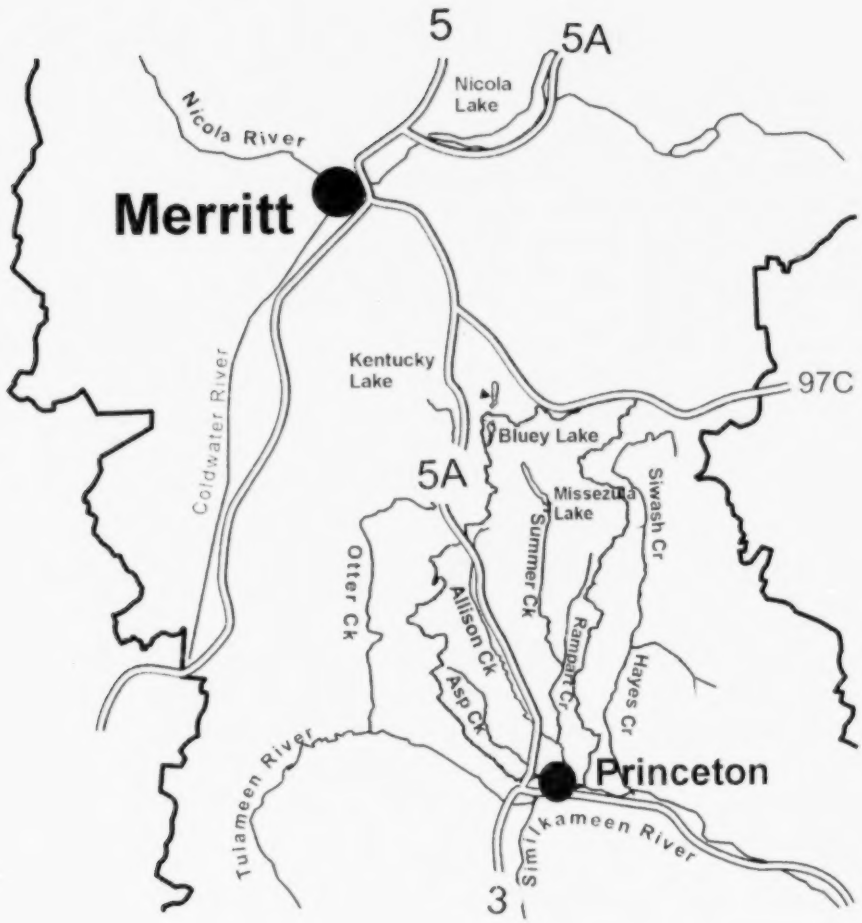


Liz Osborn, MRM, MSc
A/Chair, Forest Practices Board
April 30, 2003

Merritt Forest District Audit Area



Merritt Forest District Audit Area

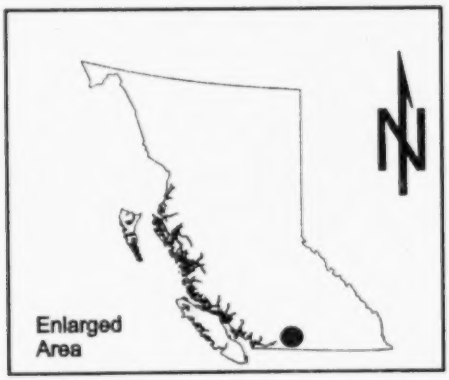


Audit Area

Highway

Merritt Forest District Boundary

(Map not to scale)



Forest Practices Board Compliance Audit Process

B. Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders for compliance with the *Forest Practices Code of British Columbia Act* and regulations (the Code). The Board has the authority to conduct these periodic independent audits under section 176 of the *Forest Practices Code of British Columbia Act*. Compliance audits examine forest planning and practices to determine whether or not they meet Code requirements.

Audit Standards

Audits by the Forest Practices Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards.

The audits determine compliance with the Code based on criteria derived from the *Forest Practices Code of British Columbia Act* and its related regulations. Audit criteria are established for the evaluation or measurement of each practice regulated by the Code. The criteria reflect judgments about the level of performance that constitutes compliance with each requirement.

The standards and procedures for compliance audits are described in the Board's *Compliance Audit Reference Manual.*

Audit Process

Conducting an Area-Based Audit

Once the Board selects the area to be audited, the audit period and the staff and resources required to conduct the audit are determined. Board staff meet with the parties in the area being audited to discuss the logistics of the audit before commencing the work. The parties involved could be forest companies, oil and gas companies, woodlot owners or ranchers.

All the activities carried out during the period subject to audit are identified; for example, harvesting or replanting sites, and constructing or deactivating road sections. The items that make up each forest or range activity are referred to as a "population." For example, all sites harvested by a specific licensee form the "timber harvesting population" for that licensee. All road sections constructed by a specific licensee form the "road construction population" for that licensee. The populations are then sub-divided based on factors such as characteristics of the sites and potential severity of the consequences of non-compliance on the sites.

For each population of each licensee, the auditors choose the most efficient means of obtaining information to conclude whether there is compliance with the Code. For efficiency, auditors usually rely upon sampling to obtain audit evidence, rather than inspecting all activities.

Individual sites and forest or range practices within each population have different characteristics, such as the type of terrain, type of yarding or grazing levels. Each population for each licensee is divided into distinct sub-populations on the basis of common characteristics (e.g., steep ground vs. flat ground). A separate sample is selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to the sub-population where the risk of non-compliance is greater.

Audit work in the field includes assessments from the air using helicopters and ground procedures, such as measuring specific features like road or riparian reserve zone width. The audit teams generally spend one to three weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

Auditors collect, analyze, interpret and document information to determine the audit results. The audit team, composed of professionals and technical experts, first determines whether forest practices are in compliance with Code requirements. For those practices considered to not be in compliance, the audit team then evaluates the degree to which the practices are judged not in compliance. The significance of the non-compliance is determined based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

As part of the assessment process, auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet Code requirements.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that a non-compliance event, or the accumulation and consequences of a number of non-compliance events, is not significant and is not considered worthy of reporting.

Significant non-compliance – where the auditor determines that the event or condition, or the accumulation and consequences of a number of non-compliance events or conditions, is or has the potential to be significant, and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of the non-compliance. A significant breach can also result from the cumulative effect of a number of non-compliance events or conditions.

Identification of a possible significant breach requires the auditor to conduct tests to confirm whether or not there has been a breach. If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Ministers of Forests, Energy and Mines, and Water, Land and Air Protection.

Reporting

Based on the above evaluation, the auditor then prepares the "Report from the Auditor" for submission to the Board. The parties being audited are given a draft of their portion of the report before it is submitted to the Board so that the party is fully aware of the findings. The auditee is also kept fully informed of the audit findings throughout the process, and is given opportunities to provide additional relevant information and to ensure the auditor has complete and correct information.

Once the auditor submits the report, the Board reviews it and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report to the public and government. The representations allow parties that may potentially be adversely affected to present their views to the Board.

At the discretion of the Board, representations may be written or oral. The Board will generally decide on written representations, unless the circumstances strongly support the need for an oral hearing.

The Board then reviews the report from the auditor for each auditee and the representations from parties that may potentially be adversely affected before preparing its final report, which includes the Board's conclusions and, if appropriate, recommendations.

If the Board's conclusions or recommendations result in newly adversely-affected parties or persons, additional offers of representations would be required.

Once the representations have been completed, the reports are finalized and released: first to the respective auditees and then to the public and government.

Reports from the Auditor – Compliance Audits

C. Reports from the Auditor – Compliance Audits

1.0 Introduction

Area-based audit

As part of the Forest Practices Board's 2002 audit program, the Board selected the Allison-Missezula draft landscape unit area within the Merritt Forest District for audit. The area-based audit examined the activities of all parties with responsibilities under the *Forest Practices Code of British Columbia Act* and regulations (the Code), including forest tenure holders and resource agencies, range tenure holders, as well as government Code enforcement activities.

This report describes the audit of the planning and practices of the forest and range tenure holders and resource agencies in the area.

Section 176 of the Code requires the Forest Practices Board to carry out audits of compliance with the Code by parties. The Merritt Forest District was selected randomly from the population of seven forest districts in the Kamloops Forest Region, and not on the basis of location or level of performance. The Allison-Missezula draft landscape unit area was selected randomly from nine areas containing sufficient levels of forest and range activities for audit.

The main parties with forest activities in the audit area were:

- Ardew Wood Products Ltd.
- Aspen Planers Ltd.
- Merritt Forest District - district manager obligations
- Merritt Forest District - Small Business Forest Enterprise Program (SBFEP)
- Nicola Pacific Forest Products Ltd.
- Princeton Forest Products Ltd.
- Qwa'eet Forest Products Ltd.
- Tolko Industries Ltd.
- Weyerhaeuser Company Ltd., and
- three woodlot tenures

In addition, there were 15 range tenures in the audit area.

Although Qwa'eet Forest Products Ltd.'s non-replaceable forest licence A55525 operates within the selected area, the company operations were exempted from audit since the Board audited this forest licence in 2001.

The audit area is the Allison-Missezula draft landscape unit in the south-central portion of the Merritt Forest District. The area is approximately 67,300 hectares in size and accounts for just over 6 percent of the Merritt Forest District. The area extends north from Princeton to Highway 97C with the northern boundary extending west, between Kentucky Lake and Bluey Lake, to Highway 5A. The western boundary follows the height of land between Asp Creek and the Tulameen River and Otter Creek, and the eastern boundary follows the height of land between Rampart Creek, and Siwash and Hayes Creeks (see map on page A-3).

The audit area consists of generally flat and rolling terrain. The area receives low annual precipitation, most of which is snow. Forests within the audit area are dominated by lodgepole pine, Douglas fir, spruce, balsam and ponderosa pine trees. There have been relatively high levels of forestry activity within the audit area over the past few years compared with other areas within the forest district. Harvesting in the audit area was approximately 285,000 cubic metres during the audit period.

In January 1999, the chief forester granted a temporary uplift of 550,000 cubic metres within the Merritt Forest District for a term of two years, in order to salvage timber from the 1998 Lawless Creek wildfire, and to help control the mountain pine beetle epidemic. To harvest this additional cut, the district modified an existing form of tenure agreement, and called it an Undeveloped Timber Sale Licence (UTSL). These UTSLs allowed the additional workload of the uplift to be spread across available ministry and licensee staff.

Major licensees, First Nations and interested logging contractors in the district were provided an opportunity to harvest the wood. Initial planning was done by the licence holders, and was included as an amendment to the SBFEP forest development plan[i] for public review and comment. Once approved, licensees would develop silviculture prescriptions[ii], and harvest the timber. Following harvesting, the roads and silviculture responsibilities were turned back to the district. This type of tenure agreement requires a high level of cooperation and coordination. The UTSLs were just expiring at the end of the audit period.

There is no existing land use plan for the Allison-Missezula draft landscape unit. There are numerous recreation sites and trails designated as higher level plans[iii] within the district and 16 of these sites and trails are located within the audit area. There are no other declared higher level plans in the Merritt Forest District. However, the district manager has made some resource information known to licensees to help guide operational planning, such as visual quality objectives for lakes, wildlife tree patch retention, ungulate winter ranges, and a strategy for harvesting large cutblocks.

2.0 Licensee Reports

2.1 Merritt Forest District

2.1.1 Scope

The audit examined the government's activities and obligations under the Code in the Merritt Forest District in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities and obligations are the responsibility of the Small Business Forest Enterprise Program (SBFEP) and the district manager. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 27 cutblocks including small-scale salvage
- construction of 4 road sections totalling 6.6 kilometres
- maintenance of 69.9 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 2 road sections totalling 2.0 kilometres
- planting on 20 cutblocks
- site preparation on 7 cutblocks
- regeneration obligations for 7 cutblocks
- free-growing obligations on 2 cutblocks
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out by the SBFEP during the audit period were approved in the program's 1998-2003 and 2001-2006 forest development plans.

No bridges fell within the scope of this audit.

Section 2.1.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002,* sets out the standards and procedures that were used to carry out this audit.

2.1.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. The audit examined:

- harvesting of 9 cutblocks including small-scale salvage
- construction of 4 road sections totalling 3.5 kilometres
- maintenance of 44.6 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 2 road sections totalling 2 kilometres
- planting on 4 cutblocks
- site preparation on 4 cutblocks
- regeneration obligations for 2 cutblocks
- free-growing obligations on 2 cutblocks
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 1998-2003 and 2001-2006 forest development plans for compliance with the Code, including consistency between the plans and objectives in designated higher level plans. Only the portions of the forest development plans that applied to the audit area were examined.

Findings

The audit found that the Merritt Forest District planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation activities.

Instances of non-compliance were noted in the areas of road deactivation and fire protection, but were few in number and minor in nature.

2.1.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation carried out by the Merritt Forest District, in the Allison-Missezula draft landscape unit, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.1.1 and 2.1.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

C R Mosher

Christopher R. Mosher, CA, CEA(SFM)
Auditor of Record
Victoria, British Columbia
January 24, 2003

2.2 Ardew Wood Products Ltd. - UTSL A68726

2.2.1 Scope

The audit examined Ardew Wood Products Ltd.'s undeveloped timber sale licence (UTSL) A68726 activities in the areas of operational planning (including the forest development plan and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Ardew Wood Products Ltd. within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 2 cutblocks
- construction of 1 road section totalling 310 metres
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the audit period were approved in the Merritt Forest District's SBFEP forest development plan.

No bridges fell within the scope of this audit.

Section 2.2.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002*, sets out the standards and procedures that were used to carry out this audit.

2.2.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. Because of the small population size, all of the items within each activity were audited. The audit examined:

- harvesting of 2 cutblocks
- construction of 1 road section totalling 310 metres
- protection activities including fire-preparedness planning, fuel management and hazard abatement

Findings

The audit found that Ardew Wood Products Ltd.'s planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; fire protection; and road construction activities. Instances of non-compliance observed were few and minor in nature.

2.2.3 Opinion

In my opinion, the operational planning, timber harvesting, fire protection, and road construction carried out by Ardew Wood Products Ltd. on UTSL A68726, in the Allison-Missezula draft landscape unit area, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about Ardew Wood Products Ltd.'s silviculture or road maintenance and deactivation.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.2.1 and 2.2.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

C R Mosher

Christopher R. Mosher, CA, CEA(SFM)
Auditor of Record
Victoria, British Columbia
January 24, 2003

2.3 Aspen Planers Ltd. - FL A18695, UTSLs A68725, A61669 and A62922

2.3.1 Scope

The audit examined Aspen Planers Ltd.'s forest licence (FL) A18695 and undeveloped timber sale licences (UTSL) A68725, A61669 and A62922 activities in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Aspen Planers Ltd. within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 3 cutblocks
- maintenance of 14 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 5 road sections totalling 6.4 kilometres
- free-growing obligations on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the audit period were approved in Aspen Planers Ltd.'s 1998-2002, 2001-2006 and the Merritt SBFEP forest development plan.

No bridges fell within the scope of this audit.

Section 2.3.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002,* sets out the standards and procedures that were used to carry out this audit.

2.3.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. Because of the small population sizes, all or most of the items within each activity were audited. The audit examined:

- harvesting of 3 cutblocks

- maintenance of 4.9 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 3 road sections totalling 3.9 kilometres
- free-growing obligations on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 1998-2002 and the 2001-2006 forest development plans for compliance with the Code, including consistency between the plans and objectives in designated higher level plans. Only the portions of the forest development plans that applied to the audit area were examined.

Findings

The audit found that Aspen Planers Ltd.'s planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road maintenance and deactivation activities. The audit did not identify any non-compliance.

2.3.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; and road maintenance and deactivation carried out by Aspen Planers Ltd. on forest licence A18695 and UTSLs A68725, A61669 and A62922, in the Allison-Missezula draft landscape unit, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about Aspen Planers Ltd.'s road construction.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.3.1 and 2.3.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

C R Mosher

Christopher R. Mosher, CA, CEA(SFM)
Auditor of Record
Victoria, British Columbia
January 24, 2003

2.4 Nicola Pacific Forest Products Ltd. - FL A55524

2.4.1 Scope

The audit examined Nicola Pacific Forest Products Ltd.'s forest licence (FL) A55524 activities in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Nicola Pacific Forest Products Ltd. within the Allison-Missezula draft landscape unit and during the audit period, and therefore subject to audit, were:

- harvesting of 7 cutblocks
- construction of 4 road sections totalling 1.7 kilometres
- maintenance of 9.5 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planting on 2 cutblocks
- regeneration obligations for 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the audit period were approved in Nicola Pacific Forest Products Ltd.'s 2001-2005 forest development plan.

No bridges fell within the scope of this audit.

Section 2.4.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002,* sets out the standards and procedures that were used to carry out this audit.

2.4.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. Because of the small population sizes, all or most of the items within each activity were audited. The audit examined:

- harvesting of 4 cutblocks
- construction of 4 road sections totalling 1.7 kilometres

- maintenance of 7.3 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planting on 2 cutblocks
- regeneration obligations for 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 2001-2005 forest development plan for compliance with the Code, including consistency between the plan and objectives in designated higher level plans. Only the portions of the forest development plan that applied to the audit area were examined.

Findings

The audit found that Nicola Pacific Forest Products Ltd.'s planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road construction and maintenance activities.

Instances of non-compliance were noted in the areas of timber harvesting and fire protection, but were few in number and minor in nature.

2.4.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; and road construction and maintenance carried out by Nicola Pacific Forest Products Ltd. on forest licence A55524, in the Allison-Missezula draft landscape unit area, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about Nicola Pacific Forest Products Ltd.'s road deactivation.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.4.1 and 2.4.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

C R Mosher

Christopher R. Mosher, CA, CEA(SFM)
Auditor of Record
Victoria, British Columbia
January 24, 2003

2.5 Princeton Forest Products - NRFL A61106

2.5.1 Scope

The audit examined Princeton Forest Products' non-replaceable forest licence (NRFL) A61106 activities in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Princeton Forest Products within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 6 cutblocks
- construction of 3 road sections totalling 2.4 kilometres
- maintenance of 1.3 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planting on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the period were approved in Princeton Forest Products' 2001-2006 forest development plan.

No bridges fell within the scope of this audit.

Section 2.5.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002*, sets out the standards and procedures that were used to carry out this audit.

2.5.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. Because of the small population sizes, all or most of the items within each activity were audited. The audit examined:

- harvesting of 6 cutblocks
- construction of 1 road section totalling 0.8 kilometres

- maintenance of 0.8 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planting on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 2001-2006 forest development plan for compliance with the Code, including consistency between the plan and objectives in designated higher level plans. Only the portions of the forest development plan that applied to the audit area were examined.

Findings

The audit found that Princeton Forest Products' planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road construction and maintenance activities.

Instances of non-compliance were noted in the area of fire protection, but were few in number and minor in nature.

2.5.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; road construction and maintenance carried out by Princeton Forest Products on non-replaceable forest licence A61106, in the Allison-Missezula draft landscape unit, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about Princeton Forest Products' road deactivation.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.5.1 and 2.5.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

C R Mosher

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Auditor of Record
Victoria, British Columbia
January 24, 2003

2.6 Tolko Industries Ltd. - FL A18696

2.6.1 Scope

The audit examined Tolko Industries Ltd.'s forest licence (FL) A18696 activities in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Tolko Industries Ltd. within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 21 cutblocks
- construction of 6 road sections totalling 3.8 kilometres
- maintenance of 51.2 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 4 road sections totalling 1.2 kilometres
- maintenance of 1 bridge
- planning and layout of 6 road sections totalling 5.9 kilometres
- planting on 2 cutblocks
- regeneration obligations for 1 cutblock
- free-growing obligations on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the period were approved in Tolko Industries Ltd.'s 2001-2006 forest development plan.

Section 2.6.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002*, sets out the standards and procedures that were used to carry out this audit.

2.6.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. The audit examined:

- harvesting of 12 cutblocks
- construction of 5 road sections totalling 2.9 kilometres
- maintenance of 39.5 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- permanent and semi-permanent deactivation of 4 road sections totalling 825 metres
- planning and layout of 1 road section totalling 490 metres
- maintenance of 1 bridge
- planting on 2 cutblocks
- regeneration obligations for 1 cutblock
- free-growing obligations on 1 cutblock
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 2001-2006 forest development plan for compliance with the Code, including consistency between the plan and objectives in designated higher level plans. Only the portions of the forest development plan that applied to the audit area were examined.

Findings

The audit found that Tolko Industries Ltd.'s planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation activities.

Instances of non-compliance were noted in the area of timber harvesting, but were few in number and minor in nature.

2.6.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation carried out by Tolko Industries Ltd. on forest licence A18696, in the Allison-Missezula draft landscape unit, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.6.1 and 2.6.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

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2.7 Weyerhaeuser Company Ltd. - FL A18674 and A18698

2.7.1 Scope

The audit examined Weyerhaeuser Company Ltd.'s forest licence (FL) A18674 and A18698 activities in the areas of operational planning (including forest development plans and silviculture prescriptions); timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations within the audit area for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The activities carried out by Weyerhaeuser Company Ltd. within the Allison-Missezula draft landscape unit during the audit period, and therefore subject to audit, were:

- harvesting of 27 cutblocks
- construction of 44 road sections totalling 56.4 kilometres
- maintenance of 181.5 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planning and layout of 14 road sections totalling 14.5 kilometres
- maintenance of 2 bridges
- planting on 21 cutblocks
- site preparation on 9 cutblocks
- regeneration obligations for 10 cutblocks
- free-growing obligations on 21 cutblocks
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The activities carried out in the period were approved in Weyerhaeuser Company Ltd.'s 1999-2004 and 2001-2006 forest development plans.

Section 2.7.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002,* sets out the standards and procedures that were used to carry out this audit.

2.7.2 Findings

Planning and practices examined

The audit work on selected roads and cutblocks included ground-based procedures and assessments from the air using a helicopter. The audit examined:

- harvesting of 14 cutblocks
- construction of 26 road sections totalling 33.2 kilometres
- maintenance of 125.1 kilometres of road, involving activities such as road surfacing and cleaning culverts and ditches
- planning and layout of 2 road sections totalling 5.5 kilometres
- maintenance of 2 bridges
- planting on 2 cutblocks
- site preparation on 2 cutblocks
- regeneration obligations for 3 cutblocks
- free-growing obligations on 10 cutblocks
- protection activities including fire-preparedness planning, fuel management and hazard abatement

The audit also examined the 1999-2004 and the 2001-2006 forest development plans for compliance with the Code, including consistency between the plans and objectives in designated higher level plans. Only the portions of the forest development plans that applied to the audit area were examined.

Findings

The audit found that Weyerhaeuser Company Ltd.'s planning and field activities within the audit area complied, in all significant respects, with Code requirements for operational planning; timber harvesting; silviculture; fire protection; and road construction and maintenance activities.

Instances of non-compliance were noted in the area of timber harvesting, but were few in number and minor in nature.

2.7.3 Opinion

In my opinion, the operational planning; timber harvesting; silviculture; fire protection; and road construction and maintenance carried out by Weyerhaeuser Company Ltd. on forest licences A18674 and A18698, in the Allison-Missezula draft landscape unit, from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about Weyerhaeuser Company Ltd.'s road deactivation.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2.7.1 and 2.7.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

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January 24, 2003

3.0 Other Licences

3.1 Woodlots

3.1.1 Scope

The audit examined the activities of woodlot licences 360, 1446 and 1861, within the Allison-Missezula draft landscape unit, in the areas of operational planning; timber harvesting; silviculture; fire protection; and road construction, maintenance and deactivation. Woodlots are allowed to harvest their five-year allowable annual cut (AAC) any time within a five-year cut control period. For this reason, not all the woodlots had harvest activities within the audit period.

Woodlot 350, with an AAC of 671 cubic metres, and woodlot 1446, with an AAC of 833 cubic metres, were active during the audit period. The combined activity included road maintenance, one harvest cutblock, a fall-and-burn forest health program involving approximately 100 trees, and the planting of two cutblocks. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code). All activities, planning and obligations for the period July 1, 2001, to July 18, 2002, were included in the scope of the audit.

The audit included assessing any operational plans for compliance with the Code, including consistency between the plan and objectives in designated higher level plans.

Section 3.1.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002*, sets out the standards and procedures that were used to carry out this audit.

3.1.2 Findings

The audit work conducted included an aerial overview of the timber harvesting, planting activities and road maintenance, with an office review of the operational plans and supporting documents.

Findings

The audit did not identify any non-compliance with respect to timber harvesting, silviculture and road maintenance on woodlot licences 360 and 1446.

It was not possible to examine woodlot licences 360 and 1466 for compliance with Code requirements for road construction or deactivation, as there were no operations for these activities during the audit period. It was also not possible to assess fire protection, as there were no active sites during the time of the field audit.

It was also not possible to examine woodlot licence 1861, as it was inactive during the audit period.

3.1.3 Opinion

In my opinion, the timber harvesting, silviculture and road maintenance activities carried out by woodlot operators on woodlot licences 360 and 1466 within the Allison-Missezula draft landscape unit from July 1, 2001, to July 18, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

No opinion is expressed about road building, road deactivation or fire protection on woodlot licences 360 and 1466.

No opinion is expressed about woodlot licence 1861.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 3.1.1 and 3.1.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and forestry practices to support an overall evaluation of compliance with the Code.

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January 24, 2003

3.2 Range

3.2.1 Scope

The scope of the range audit was limited to an assessment of recent cattle activity in and around key riparian features within the Allison-Missezula draft landscape unit. The timing of the field visit was not conducive to the examination or confirmation of specific range use plan practices such as initial turnout or removal dates, stocking levels, target utilization or minimum residual stubble heights. The activities in and around the identified riparian features were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code), in particular the requirement to maintain proper functioning condition[iv], which is described in each range use plan.

Each key riparian feature within the Allison-Missezula draft landscape unit was identified through a review of the range use plan maps. These identified key riparian features were field-examined by helicopter on July 16, 2002. The purpose of the initial field examination was to determine, through a visual assessment from the air, whether the riparian features appeared to have been damaged by cattle. Once the initial assessment was complete, a focused ground assessment of the proper functioning condition of the riparian areas would be completed, if required, and the source and cumulative impact of the riparian damage would be assessed.

The audit population consisted of:

- 48 stream reaches totalling approximately 100 kilometres
- 40 wetlands/lakes

All 15 range use plans within the Allison-Missezula draft landscape unit were reviewed for completeness and enforceability, as well as to identify the key riparian features. See appendix A for a list of the specific range use plans.

Section 3.2.2 describes the audit of these activities and the audit results. The Board's audit reference manual, *Compliance Audit Reference Manual, Version 5.1, May 2002*, sets out the standards and procedures that were used to carry out this audit.

3.2.2 Findings

The audit included an overview of each of the 15 range use plans as well as an assessment of all of the key riparian features in the Allison-Missezula draft landscape unit from the air using a helicopter. The audit examined 48 stream reaches totalling approximately 100 kilometres, as well as 40 wetlands and lakes.

Findings

The audit found that recent range tenure activities in and around riparian features within the Allison-Missezula draft landscape unit complied, in all significant respects, with Code requirements.

3.2.3 Opinion

In my opinion, the recent range tenure activities in and around riparian features carried out in the Allison-Missezula draft landscape unit prior to July 16, 2002, were in compliance, in all significant respects, with the requirements of the Code as of July 2002.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 3.2.1 and 3.2.2 of this report from the auditor describe the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient planning and range practices to support an overall evaluation of compliance with the Code.

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January 24, 2003

Appendix A

Range Tenure Holders in the Allison-Missezula Draft Landscape Unit

Tenure Number	Type of Tenure	Tenure Holder
RAN071057	Range use plan	Linda Allison
RAN074403	Range use plan	BJK Investments Ltd.
RAN075261	Range use plan	James Currie
RAN074349	Range use plan	Douglas Lake Cattle Co. Ltd.
RAN073655	Range use plan	Gene Ewalt
RAN073658	Range use plan	Laurel and Merlyn Jones
RAN07318	Range use plan	Maverick Cattle Co. Ltd.
RAN074414	Range use plan	James H. McLachlan
RAN072728	Range use plan	Quilchena Cattle Co. Ltd.
RAN071063	Range use plan	620067 BC Ltd. 616386 BC Ltd. 623819 BC Ltd.
RAN073960	Range use plan	Robert, Marion and Alex Rauch
RAN071079	Range use plan	William L. Shropshire
RAN071059	Range use plan	Theodore and Kathleen Worthington
RAN073695	Range use plan	Donna Allen
RAN074415	Range use plan	Carrie Hoigaard

[i] A forest development plan is an operational plan that provides the public and government agencies with information about the location of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect forest resources. It must also be consistent with any higher level plans. Site-specific plans are required to be consistent with the forest development plan.

[ii] A silviculture prescription is a site-specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). The silviculture prescriptions examined in the audit are required to describe the management activities proposed to maintain the inherent productivity of the site, accommodate all resource values, including biological diversity, and produce a free-growing stand capable of meeting stated management objectives. Silviculture prescriptions must be consistent with forest development plans that encompass the area to which the prescription applies.

[iii] A higher level plan is a forest resource management objective that is established as legally binding by a written order. The objective applies to a resource management zone, landscape unit, sensitive area, recreation site, recreation trail, or interpretive forest site. Higher level plans are a provision of the *Forest Practices Code of British Columbia Act* that give direction to operational plans.

[iv] Proper functioning condition - The ability of a stream, river, wetland, or lake and its riparian area, to withstand: normal peak flood events without experiencing accelerated soil loss: channel movement or bank movement; filter runoff; and, store and safely release water.

Audit of the Government of British Columbia's Enforcement of the Forest Practices Code in a portion of the Merritt Forest District

D. Report from the Auditor – Enforcement Audit

1.0 Introduction

As part of the Forest Practices Board's 2002 audit program, the Board selected the Allison-Missezula draft landscape unit area within the Merritt Forest District for audit. The area-based audit examined the activities of all parties with responsibilities under the *Forest Practices Code of British Columbia Act* and regulations (the Code), including forest and range tenure holders and government forest activities, as well as government's activities to enforce the Code. The results of the audits of the various parties' forest activities are reported in Part C.

This report describes the audit of government's enforcement of the Code, including activities such as tracking, inspecting, and reporting licensees' forest activities, and taking action, where necessary, to address non-compliance with the Code.

The Merritt Forest District was selected randomly from the population of seven forest districts in the Kamloops Forest Region, and not on the basis of location or level of performance. The district was divided into nine areas, each containing sufficient levels of forest and range activities for audit, and the Allison-Missezula draft landscape unit area was selected randomly from among the nine areas.

Section 176(b) of the Code requires the Board to carry out periodic independent audits of the appropriateness of government enforcement under the Code. Three ministries have authority under the Code for enforcement—Forests (MOF), Water, Land and Air Protection (MWLAP), and Energy and Mines (MEM).

The total volume harvested in the audit area during the audit period was approximately 285,000 cubic metres.

The audit area is the Allison-Missezula draft landscape unit in the south-central portion of the Merritt Forest District. The area is approximately 67,300 hectares in size and accounts for just over 6 percent of the Merritt Forest District. The area extends north from Princeton to Highway 97C, with the northern boundary extending west between Kentucky Lake and Bluey Lake, to Highway 5A. The western boundary follows the height of land between Asp Creek and the Tulameen River and Otter Creek, and the eastern boundary follows the height of land between Rampart Creek and Siwash and Hayes Creeks (see map on page A-3).

The audit area consists of generally flat and rolling terrain. The area receives low annual precipitation, most of which is snow. Forests within the audit area are dominated by lodgepole pine, Douglas fir, spruce, balsam and ponderosa pine trees. The audit area has seen relatively high levels of forestry activity over the past few years, compared with other areas within the forest district.

In January 1999, the chief forester granted a temporary uplift of 550,000 cubic metres within the Merritt Forest District, for a term of two years in order to salvage timber from the 1998 Lawless Creek wildfire, and to help control the mountain pine beetle epidemic. To harvest this additional timber, the district modified an existing form of tenure agreement, and called it an undeveloped timber sales licence (UTSL). These UTSLs allowed the additional workload of the uplift to be spread across available ministry and licensee staff.

Major licensees, First Nations and interested logging contractors in the district were provided an opportunity to harvest the timber. Initial planning was done by the licence holders, and was included as an amendment to the forest development plan[i] for the ministry's Small Business Forest Enterprise Program (SBFEP) for public review and comment. Once approved, licensees developed silviculture prescriptions,[ii] and harvested the timber. Following harvesting, the road and silviculture responsibilities were turned back to the district. This type of tenure agreement requires a high level of cooperation and coordination. These UTSLs were just expiring at the end of the audit period.

There is no existing land use plan for the Allison-Missezula draft landscape unit. There are numerous recreation sites and trails designated as higher level plans[iii] within the district, and 16 of these sites and trails are located within the audit area. There are no other declared higher level plans in the Merritt Forest District. However, the district manager has made some resource information known to licensees to help guide operational planning, such as visual quality objectives for lakes, wildlife tree patch retention, ungulate winter ranges, and a strategy for harvesting large cutblocks.

2.0 Audit Scope and Approach

The audit examined government's planning, management direction and operational activities related to enforcement of the Code, for the period July 1, 2001, to July 18, 2002.

Audit Criteria

The audit used criteria to assess three broad aspects of government enforcement: the design of the compliance and enforcement (C&E) organization and business processes; their application in practice (through sampling both compliance and enforcement transactions in a number of areas such as compliance inspections); and the management framework used to direct, support, monitor and report on C&E activity.

The following main assessment criteria were used:

- Government agencies obtain, use and maintain adequate information on the forest activities subject to compliance and enforcement.
- Government agencies have an effective way of identifying risks associated with forest activities and utilizing risk in inspection planning.

- Government agencies conduct a sufficient number of inspections, in a fair, objective and effective way, and accurately record and report results.
- Investigations and determinations are carried out in all applicable situations and only when warranted. They are performed in a fair, objective and consistent way, and are accurately recorded and reported.
- Agencies establish, through operational plan approval and related processes, expectations for forest practices, which are enforceable and in accordance with the Code.
- There are established organizational structures, policies and processes that contribute to and support appropriate enforcement of the Code.
- The decisions and actions of different parts of government responsible for enforcement of the Code are appropriate and coordinated.
- Reporting systems provide adequate information on agency performance in relation to enforcement objectives.

Candidate activities

The forest activities carried out, and obligations held, during the audit period—and therefore subject to government enforcement—were:

- harvesting of 71 cutblocks
- construction of 41 sections of road totalling approximately 46 kilometres
- planning, layout and design of 3 sections of road totalling approximately 6 kilometres
- maintenance of approximately 259 kilometres of forest road, including 3 bridges
- deactivation of 11 sections of road totalling approximately 9 kilometres
- site preparation of 9 cutblocks, planting of 27 cutblocks, regeneration of 12 cutblocks and free-growing obligations on 14 cutblocks
- cattle-management activities on 15 range tenures
- harvesting and silviculture activity on 3 woodlot tenures
- fire-protection requirements during forest operations

The Ministry of Forests' compliance and enforcement activities carried out during the audit period, and therefore subject to audit, included:

- the design of the C&E organization and business processes;
- the planning, conduct, recording and reporting of C&E activity; and
- the systems and processes used to manage C&E activity.

Within the audit area, MOF C&E staff conducted a total of 119 harvesting and road inspections during the audit period, of which 5 were for major licensees, 108 for SBFEP and 11 for other licence types. As well, there were eight range inspections recorded by range program staff and there were no silviculture inspections or inspections of district manager obligations for the audit area within the audit period.

The Ministry of Water, Land, Air Protection's approach to Code enforcement does not involve a C&E organization, a program of compliance inspections of forest and range activities, or systems to record and report C&E activity. Considerable reliance is placed on MOF to enforce the Code.

There was no activity within the audit area during the audit period for which the Ministry of Energy and Mine's had enforcement responsibilities.

Audit Work and Activities Examined

The audit work included:

- interviewing MOF and MWLAP staff and management
- reviewing and evaluating agency policies, processes and controls
- office-based examination and analysis of MOF C&E inspections undertaken during the audit period, in the audit area
- field examination, along with MOF C&E staff, of 7 selected cutblocks
- consideration of the results of the compliance auditor's detailed field examination of activities in the audit area, in relation to C&E activity associated with these activities

3.0 Overall Conclusions

The audit examined the C&E organization and activities of the two government agencies with Code enforcement responsibilities for the Allison-Missezula draft landscape unit in the south central portion of the Merritt Forest District for the period July 1, 2001, to July 18, 2002.

Ministry of Forests

The Ministry of Forests takes the lead role in Code enforcement, consistent with its primary responsibility for the administration of forestry legislation in British Columbia, including the Code.

The ministry has largely completed its framework for Code enforcement and, overall, is appropriately enforcing the Code in the audit area. The ministry has, with the exception of two areas of significant weakness noted below, generally achieved the Board's criteria of appropriate enforcement. The district and forest licensees within the area audited have achieved the primary objective of Code enforcement: a high level of compliance with the Code.

No situations of significant non-compliance were found in the Board's compliance audit work. Situations of non-compliance with the Code were detected, recognized, and appropriately addressed by the district.

The audit identified two areas of significant weakness:

1. There are an insufficient number of inspections of what the district considers low-priority activities, such as major licensee harvesting and roads activities, woodlots, fire protection, as well as some silviculture activities. High-priority activities such as the SBFEP, small-scale salvage and undeveloped timber sales received the majority of inspection coverage. Low-priority activities in the audit area only received approximately one percent of inspections during the audit period. District management indicates that they inspect all very high-priority sites within the district, and that five percent of their district inspection efforts have been dedicated to major licensee harvesting and road activities. To be considered sufficient, a minimum overall level of inspection needs to be set and performed for all activities, covering all priority levels and risk categories. This minimum level of inspection would confirm whether or not the risks associated with these activities continue to warrant the planned lower levels of inspection frequency. This would ensure that all activities receive at least some minimum reasonable level of examination.

2. There is a lack of appropriate compliance and enforcement for activities conducted in relation to district manager obligations. The region indicated it relies on district C&E staff to monitor district manager obligations, but neither the Kamloops Forest Region nor the district C&E staff inspects these obligations. Within the audit area during the audit period, there were no inspections of obligations such as SBFEP road construction, where the roads are constructed by the district rather than by a licensee. The ministry will partially address this weakness when it restructures the SBFEP. Steps are underway to move the program away from the district manager's responsibility. This should allow the district to conduct C&E in a more independent manner for the activities undertaken by the SBFEP (now referred to as the BC Timber Sales Program). However, even when this change is implemented, a weakness will remain in the enforcement of other district manager obligations, such as maintaining forest service roads.

The audit also identified some areas where the district C&E program could be enhanced to provide greater assurance of appropriate Code compliance. These other areas noted for improvement are not considered to be significant weaknesses in the ministry's enforcement of the Code and they are discussed further in section 4.0 of this report. For example, determinations should be completed in a timely manner. In addition, range risk assessments need to be completed at the pasture level, not just the tenure level.

Ministry of Water, Land and Air Protection

Although the Ministry of Water, Land and Air Protection has the same authority for Code enforcement as the MOF, it is not aware of what forest activities are occurring or when they occur, and its framework for Code enforcement is not complete.

Before government restructured MWLAP in 2001, the ministry had been developing a C&E model, which included a program of inspections as well as coordination with MOF's C&E processes. The processes envisaged were intended to be carried forward and delivered by MWLAP; however, to date this has not occurred.

The ministry does not conduct compliance inspections of forest practices, does not have input into the inspections conducted by MOF, and is not attempting to use its enforcement authority under the Code. The ministry's involvement with the Code is limited to:

- providing advice about proposed forest development plans and priority silviculture prescriptions to licensees and the MOF district manager;
- field inspection of high-priority sites to verify the appropriateness of site level plans; and
- providing specialized expertise in water quality and wildlife habitat and assisting with formal investigations when requested by MOF forest officials.

The limited C&E role the ministry is currently taking constitutes a significant gap in the enforcement of the Code.

Ministry of Energy and Mines

The audit did not assess enforcement activity by the Ministry of Energy and Mines because no mining activity involving timber removal was carried out in the audit area during the audit period.

4.0 FINDINGS AND CONCLUSIONS

The detailed findings and conclusions of the audit are set out in this section by assessment criterion.

4.1 Audit criterion - Government agencies obtain, use and maintain adequate information on the forest activities subject to compliance and enforcement.

In order to undertake compliance and enforcement activities with any assurance as to whether the right activities are being examined, the ministries must be informed of the forest activities taking place in the district. If the agencies do not know about all harvesting, road and silviculture activities, there is little chance that the activities will be inspected, and there is an increased chance that non-compliance with the Code will not be identified and addressed.

The audit assessed whether government has systems in place whereby it obtains, uses and maintains sufficient information about forest activities to enable an effective program of periodic inspections.

Ministry of Forests

The district has sufficient information about forest activities taking place.

The primary sources of information about forest activities are obtained through MOF forest officials' knowledge of activities occurring within their zones. The district has processes for reviewing and approving plans of forestry operators and the review of approved site-specific operational plans and cutting permits.

The district also uses a notification system in which forestry operators are required to provide notification to the district prior to the start of their activities. Compliance with this requirement tends to be sporadic, however, and the district has limited options for enforcing it. The district believes that the new results-based code may require notification of the start of all forestry operations. If this change comes into effect, it should improve the district's knowledge of all of the forest activities occurring in the district, as well as its ability to plan inspections of these activities.

Forest officials maintain that information is received from forestry operators in an informal manner that allows them to plan inspections at the locations where the reported forest activities are taking place.

For SBFEP forest activities, the district's administration of the program provides a working knowledge of the timing of activities on the ground. Also, pre-work conferences are held, prior to the start of operations, with MOF staff and the SBFEP licensee, to discuss how operations are to be conducted and how licensee obligations are to be satisfied.

For regeneration delay and free-to-grow obligations, silviculture staff use the silviculture information system (ISIS) to determine if information submitted by licensees, on achievement of their silviculture activities and obligations, is complete or whether the required information has been submitted. The ISIS system includes all forest licensees' silviculture activities and obligations. Any exceptions or concerns identified are followed up with licensees.

For silviculture treatments such as site preparation, the district is only notified after the completion of these activities, as required by legislation. The district considers site preparation and other silviculture treatment activities in the district to be low risk, and does not carry out inspections at or near the time of the activity.

For range activities, range use plans establish locations and timeframes for grazing and other operational requirements, so the district is informed of the planned activities. The range technicians are very experienced and knowledgeable about the range use plans in the district.

Nothing came to the attention of the auditors during the compliance audits that lead the auditors to believe district C&E staff were not aware of the forestry operator activities occurring in the audit area during the audit period.

Ministry of Water, Land and Air Protection

MWLAP does not receive information about the location or timing of forest activities conducted by licensees or MOF, and does not have a program of periodic inspections of such activities. MWLAP's role in enforcing the Code is focused primarily on providing input into operational plans prior to plan approval by the MOF district manager.

Conclusions

The forest district generally has adequate knowledge about the locations and timing of forest activities. However, the district is only informed of silviculture treatment activities after they have been completed.

Some improvement is required to ensure that notification of all forest activities is received prior to the start of operations, including harvesting and road construction activities by major licensees, as well as site preparation activities.

MWLAP does not receive notification from forestry operators about the location or timing of their forest activities.

4.2 Audit criterion - Government agencies have an effective way of identifying risks associated with forest activities and utilizing risk in inspection planning.

Once government agencies have determined the forest activities eligible for inspection, they need an effective method of determining where to place their inspection efforts. Since they cannot inspect all forest activities conducted by all licensees, they need a way to allocate their resources to minimize the risk of impacts to the environment not being detected.

The audit assessed whether government has an effective process for identifying risk and using information on risk to target inspection efforts to areas with higher risk of environmental impact from forest activities.

Ministry of Forests

Through its inspection planning and risk assessment processes, the district has demonstrated that risk is driving its inspection activity. The district inspection plans prepared in the audit period considered all relevant risk factors, and the audit identified no significant risk areas that had not been considered by the district.

Inspection planning

The audit assessed whether the district has an appropriate inspection planning process that allocates its limited resources, plans for sufficient inspections of high, moderate and low-risk

activities, amends or updates the inspection plan based on the actual inspection results, demonstrates a reasonable relationship between the plan and available resources, and is being followed.

The district has identified its higher inspection priorities to be the SBFEP, small-scale salvage and undeveloped timber sales, as they are deemed to be high-risk activities. Other activities are identified as lower inspection priorities, such as major licensee harvesting and road activities, woodlots and some silviculture treatments, as they are deemed lower-risk activities. Free-growing silviculture obligations of major licensees and woodlot licensees are considered high risk and thus are high inspection priorities.

The district's inspection planning process was informal until April 2002. That's when the ministry implemented updated compliance procedures, which established a requirement for districts to prepare formal inspection plans. The Merritt Forest District's formal 2002/03 inspection plan is comprehensive and sets out inspection objectives by risk category for all activities under the responsibility of the district C&E program. Inspection priorities from high to low are also established. Inspection priorities ranged from priority 1 (highest) to 4 (lowest). However, the plan does not indicate an overall minimum inspection coverage required for a particular inspection priority, such as 10 percent for inspection priority 4.

The plan also does not match the overall inspection plan requirements to the available inspection staff resources. In practice, the district likely cannot achieve inspection of all priorities identified in the prescribed district inspection plan, given the resources available. The prescribed inspection levels are a guide to the inspectors, who use their judgment and knowledge of the area and operational plans to determine the number, selection and timing of inspections performed.

The district did not formally assess the achievement of inspection plans during the audit period. These assessments are necessary to assess the plan against actual performance and to adjust the plan's inspection risks, priorities and objectives, if appropriate. The district indicated that the compliance inspection management system (CIMS) inspection reports, required to review achievement of its inspection plan, were still under development. As a result, the district had not been able to complete its review. The district also indicated that, based on its informal review, it feels that the inspection objectives and priorities set out in the 2002/03 district inspection plan are generally being achieved.

Risk assessment

The district used several risk assessment processes during the audit period, culminating with the implementation of the new CIMS in April 2002. The systems used prior to this were limited in their inspection planning and reporting ability. The new CIMS, when fully functional, has the capability to meet all of the district's inspection needs.

The risk assessment processes in place during the audit period used reasonable and relevant information. They were comprehensive and included consideration of environmental values

and prescribed management practices. They also considered relevant risk factors including past performance, inherent risk such as terrain, and geographic isolation. These processes were consistent with ministry risk assessment policies.

Under a regional agreement between the agencies, MWLAP's input into MOF's risk assessments and inspection plans were envisaged, but have not been implemented.

Range risk assessment

For range activities, risk was assessed on range tenures but not on the individual pastures included in the range tenures, which are the focus of range inspections. There can be numerous pastures within a single range tenure, so assessing risk on a range tenure does not allow for inspection planning at the level where inspections actually occur. Usually, only a sample of the pastures in a range tenure are inspected by range officials. Range officials stated that, in practice, they do focus their inspections on the higher-risk areas of the pastures they inspect.

The current range risk assessment practice appears to be reasonably effective due to the experience and knowledge of the current range staff with the various pastures in the audit area. However, risk assessments of individual pastures are required to allow other forest officials, who do not have past experience with the pastures, to focus their inspection efforts on the higher-risk areas of pastures they are to inspect.

Ministry of Water, Land and Air Protection

MWLAP does not perform a program of regular inspections of forest activities and, therefore, does not utilize a risk assessment process.

Conclusions

The forest district has an effective way of identifying the risks associated with forest activities and utilizes this information in inspection planning.

Risk is sufficiently driving inspection activity in the district, and all risk areas received consideration by the district during inspection planning.

The district inspection plans were not formally assessed to determine if they were being achieved or if they required adjustment based on actual inspection risks, priorities and objectives. Once the CIMS inspection reports have been developed by MOF, the district should begin regular assessment of its inspection plans.

The range risk assessment processes need to assess the risks associated with individual pastures rather than only assessing risk associate with the range tenures.

MWLAP does not utilize risk assessment or inspection planning processes.

4.3 Audit criterion - Government agencies conduct a sufficient number of inspections, in a fair, objective and effective way, and accurately record and report results.

The effective conduct of inspections enables government to assess the results of forest practices, identify potential contraventions of the Code and initiate compliance and enforcement actions. Weaknesses in inspections reduce government's ability to appropriately enforce the Code.

The audit assessed whether government's inspections covered a reasonable proportion of persons engaged in forest practices, significant resource features (such as fish streams and designated ungulate winter range areas) and different geographic areas. The audit also assessed whether the number of inspections conducted was sufficient and whether the inspections were properly planned and performed.

Ministry of Forests

Number of inspections

There is a significant weakness in the district's C&E inspection conduct, as some activities are receiving limited or no inspections. These activities—which include major licensee harvesting and road construction—are considered a low priority for the district, however some minimum level of inspection frequency is required.

Activities that the district considered high-priority for inspection—such as SBFEP, small-scale salvage and undeveloped timber sales—received the majority of inspections within the audit area, which is in accordance with the district inspection plan. However, activities that the district considered to be low priority—such as major licensee harvesting and roads activities, woodlots and some silviculture treatments—received limited or no inspections.

District management indicates that they inspect all very high-risk sites, even if they involve a low-priority activity. Within the audit area, only one percent of the completed inspections of activities occurring involved major licensees. For the whole district, approximately five percent of the inspection efforts were focused on major licensee road and harvesting activities, however this was only for very high-risk sites. Major licensees are considered lower risk, as they generally are good performers, are well supervised and tend to self-report if issues arise. However, the concern is that there is no inspection effort afforded any of the other risk levels, including high-risk sites, for major licensees. Considering that major licensees undertake the majority of the forest activity in the district, the current level of inspection intensity is a concern.

There were not enough inspections of major licensees' harvesting and road activities, woodlots, fire protection, or some of the district's silviculture activities in the audit area, during the audit period. The risks associated with the activities in the audit area during the audit period were rated low to moderate, and no concerns were noted during our compliance audits of these activities. However, to be considered sufficient, a minimum overall level of inspection needs to

be set and performed for all priorities and risks. This minimum level of inspection would confirm whether the risks associated with these activities continue to warrant the planned lower levels of inspection frequency. This would ensure that all activities receive at least some minimum reasonable level of examination.

Quality of inspections

Based on our review of inspection files and on-the-ground practices, inspections are conducted in a fair and objective way. The inspections generally focused on the main risks, and accurately portrayed the ground conditions and results of forest practices, both for compliance and non-compliance. MOF inspection policy is used to guide inspection conduct. Inspections are performed by experienced staff who are generally well prepared for the inspections they conduct. Licensees or their representatives are notified of the results of inspections.

Follow-up of inspections

Forest officials accurately observed and recognized the results of the forest practices inspected and, where applicable, follow-up requirements were properly monitored through to their satisfactory completion. Enforcement action—such as compliance notices, warning tickets, investigation for senior official determination—was also initiated as appropriate.

However, the timeliness of follow-up inspection requires some improvement, or the follow-up time requirements of the CIMS system require amendment, if they are to be met. The audit noted 11 instances where follow-up inspections to ensure satisfactory completion of licensee obligations had not been completed by the date recorded in CIMS. The district indicated that since the audit, the 11 inspections have been completed or are currently being monitored. Follow-up inspections are continually tracked in CIMS until satisfactorily completed.

Inspection documentation

Inspection documentation was generally adequate. In most instances, there were sufficient details to enable the reviewer to assess the status of operations inspected, the specific area or location of the inspection, the practices inspected, the method of inspection, and the compliance status of the practices inspected. Inspectors do not prepare inspection plans. They highlight operational plans to identify the areas to be inspected and what they intend to inspect on the site. It was not easily evident from some inspection files which features or risks were inspected or the routes taken during inspections. However, we did note some recent inspections that were examples of good documentation and photographs were on file to support the forest officials' assessments. Some improvement is required to ensure the adequacy and consistency of inspection documentation.

Silviculture inspections

Silviculture obligations declared in 2002 had not been field-inspected at the time of our audit, although there were plans to inspect a reasonable sample. The 2001 silviculture obligations

declared for the audit area were all assessed as low risk, and none of these sites were part of the 10 percent random district-wide selection of low-risk silviculture field inspection sites.

Range inspections

Although there is a planned level of inspection for range, the target level of inspections appears to be low. The 2002/03 district inspection plan requires 10 pasture inspections, as well as an estimated 10 inspections driven by complaints. Even if the 10 inspections arising from public complaints are counted, the district target for range inspections is only 20 out of the 366 pastures in the audit area, or 5.5 percent inspection coverage. This coverage is low, considering the abundance of range activity in the Merritt Forest District.

However, through discussions with district range staff and a review of documented inspections, it is evident that range officials actually inspect more than the planned 20 pastures each year. One day's worth of inspections of several pastures within one tenure is currently counted as one inspection. In fact, there should be separate documentation for each pasture inspected, not just the tenure. Therefore, what the district is currently counting as one inspection should be considered to be four, five or even six inspections, depending on the number of pastures visited. Although the planned number of inspections appears low, the actual number of inspections may be adequate. The district needs to adjust its method of recording the number of pasture inspections completed, and adjust future district inspection plan targets to reflect the number of inspections on a pasture basis.

The Merritt Forest District conducts few formal range inspections, when compared to other C&E activity. The range program staff work with ranchers to obtain compliance rather than focus on enforcement. Within the audit period there were eight documented field inspections within the audit area, of which four were initiated by inspections, one by a complaint and three were follow-up inspections. There is also limited diary documentation that eight other sites were reviewed in the audit area within the audit period, however these visits were not recorded as inspections.

The inspections appear to have been conducted in a fair and objective manner and they accurately recorded and reported the inspection results. The focus is on gaining compliance prior to taking enforcement action. In one case, where compliance wasn't met after a verbal warning, a warning ticket was issued and proved effective.

Through the concurrent compliance audit performed on the audit area, 88 riparian sites were inspected to determine if there was any environmental harm occurring, or had occurred, as a result of range activities. No practices within riparian areas in the audit area were found to be non-compliant with the riparian requirements of the range use plans.

Regional inspection of district manager obligations

There is a lack of appropriate compliance and enforcement of activities conducted in relation to district manager obligations. Neither the Kamloops Forest Region nor the district C&E staff inspected these obligations within the audit area during the audit period. Although the region

takes responsibility for monitoring district manager obligations, the region indicted that it is not inspecting these obligations. The region stated this was due to a lack of resources, and therefore the region relies on district C&E staff to monitor these obligations. If the information provided by the district to the region indicates that there are concerns, then the region will consider whether or not to inspect these activities. The region does some monitoring of district C&E activities through quarterly meetings and ongoing communications with the district to discuss C&E issues.

In 2001, the region prepared a regional monitoring plan to monitor district C&E activity. Specific issues and topics were identified, and the status of regional monitoring projects was tracked. For 2002, the region was unable to prepare a regional monitoring plan or to monitor district C&E activity. The region stated this was due to a lack of resources. In 2002, the region mostly relied on the district C&E staff to monitor district manager obligations. During the audit period, within the audit area, district C&E staff did not inspect district manager obligations. However, district management indicated that other forest officials inspect district manager obligations indirectly through their contract monitoring inspections. For example, silviculture, SBFEP and road engineering officials inspect district manager obligations under their silviculture and forest service road construction, maintenance and deactivation programs. While not formal inspections for compliance and enforcement purposes, they can identify non-compliance in district manager obligations to district C&E staff.

As a result of the lack of a regional C&E inspection program, there is no independent inspection or verification of district manager obligations. The ministry is presently restructuring the SBFEP, and steps are underway to move the program from the district managers' responsibility. If implemented, this change would allow the district to conduct C&E on activities undertaken by the SBFEP (now referred to as the BC Timber Sales Program) in a more independent manner. However a weakness remains, as there still is a lack of independent inspection or verification of other district manager obligations, such as maintaining forest service roads.

Ministry of Water, Land and Air Protection

MWLAP does not have a program of periodic C&E field inspections. In the absence of periodic C&E inspections, the ministry relies on referrals from MOF and complaints from the public to identify potential contraventions. Section 4.8 of this report provides further analysis of MWLAP's approach to Code C&E.

Conclusions

There is a significant weakness in the district's C&E inspection conduct, as some activities are receiving limited to no inspections. These activities, which include major licensee harvesting and road construction, are considered a low priority for the district, with only the very high-risk sites being inspected. A minimum overall level of inspection needs to be set and performed for all activities, covering all priority levels and risk categories. This minimum level of inspection would confirm whether or not the risks associated with these activities continue

to warrant the planned lower levels of inspection frequency. This would ensure that all activities receive at least some minimum reasonable level of examination.

There is a significant weakness in C&E, as there is a lack of appropriate compliance and enforcement on activities conducted in relation to district manager obligations. Neither the Kamloops Forest Region nor the district C&E staff inspected these obligations during the audit period, within the audit area. The ministry is presently restructuring the SBFEP to move it away from the district manager's responsibility. This change should allow the district to conduct C&E inspections on the SBFEP, in an independent manner. However, a weakness will remain, as there is a lack of independent inspection or verification of other district manager obligations.

Inspections were conducted in a fair, objective and effective way, and accurately recorded and reported results.

Some improvement is required in documentation of inspections to identify the features and risks inspected and the routes taken during inspections. This improvement should be combined with the examples of good documentation evident in some of the more recent inspection files, where photographs were on file to support the forest officials' assessments.

The timeliness of follow-up inspection requires some improvement, or the follow-up time requirements of the CIMS system may require amendment, if they are to be achieved.

MWLAP did not conduct periodic compliance inspections in the area audited.

4.4 Audit criterion - Investigations are conducted in all applicable situations and only when warranted. They are performed in a fair, objective and consistent way, and are accurately recorded and reported.

Investigations are the primary tool for an in-depth examination pursuant to the identification of a suspected or alleged contravention of the Code. In many cases, the investigations will result from completion of an inspection, but they also can be initiated through other means, such as public complaints.

The audit assessed whether investigations and any subsequent determinations are carried out in all applicable situations, conducted in a fair, objective and reasonable way, and are accurately recorded and reported.

<u>Ministry of Forests</u>

Eight completed investigations were conducted in the audit area within the audit period.

The district used ministry C&E policy to guide the conduct of its investigations. The documentation of investigations was adequate, clear, sufficient, and included conclusions about the alleged contravention and any follow-up action required.

The investigations were generally completed efficiently and on a timely basis. However, we noted two investigations that were not completed on a timely basis, as they took 9 and 11 months respectively from the time of their identification to completion of the investigations. Both investigations led to determinations, which were also not completed on a timely basis, as discussed further in section 4.5 of this report.

The audit also noted one instance where there was a significant amount of investigation work relating to a minor non-compliance. While it is important to allow forest officials an appropriate level of discretion to conduct their investigations, management needs to monitor and provide guidance on the scope of investigative work to ensure consistency of investigations among forest officials, and to ensure that investigations are conducted efficiently and effectively.

Ministry of Water, Land and Air Protection

MWLAP did not initiate any investigations of potential contraventions of the Code related to water and fish and wildlife habitat during the audit period. MWLAP conservation officers will assist, when requested, with formal investigations being carried out by the district.

Based on our audit work, nothing came to our attention to indicate that any further investigations were warranted. We reviewed a wide sample of inspections carried out, and performed a detailed examination of the investigations made in the audit period. We considered the results of the concurrent Board compliance audits during the audit period, within the audit area, and the following conclusions are applicable.

Conclusions

The investigations conducted were warranted, performed in a fair, objective and reasonable way, and were accurately recorded and reported.

Some improvement is required to ensure that investigations are completed more quickly.

Some improvement is required by management in their review and approval of the scope of investigation work, from initiation to completion, to ensure that the investigation effort is reasonable given the significance of the matter under investigation.

Public complaints were assessed and followed up in an appropriate way.

MWLAP was not involved in any investigations during the audit period.

4.5 Audit criterion - Determinations are made in all applicable situations and only when required. They are performed in a fair, objective and consistent way, and are accurately recorded and reported.

The investigation process ends with a decision by the investigator that there is, or is not, a contravention, and whether follow-up is required. We define this as a decision, so as not to confuse terminology, but it is equivalent to a determination for the purposes of assessing this

criterion. In addition, senior officials under the Code may make formal determinations of non-compliance with the Code.

The audit assessed whether determinations are carried out in all applicable situations, conducted in a fair, objective and reasonable way, and are accurately recorded and reported.

Ministry of Forests

There were two senior official determinations made for the audit area within the audit period. The documentation of determinations was adequate, clear, sufficient, and included conclusions and the decisions of senior officials. Ministry C&E policy was used to guide the district's determination processes. The district used only relevant information in its determinations, and considered the decision criteria required in the Code. The type and severity of sanction applied was consistent with prior decisions, locally and elsewhere.

Determinations were completed efficiently, however they were not completed on a timely basis. One determination took 17 months and the other 14 months, which appears not to be timely as neither was complex nor required extensive investigation. The district indicated that the time taken to complete these determinations was based on their deemed low priority. The district felt that there was no future risk to the environment that would require an expedited determination. The district also noted that under legislation, it has three years from the time of discovery to make a determination. Improvement could be made in the timeliness of completion of determinations.

Ministry of Water, Land and Air Protection

MWLAP was not involved in any determinations of contraventions of the Code related to water and fish and wildlife habitat during the audit period.

Based on our audit work and the findings of the concurrent Board compliance audits, nothing came to our attention to indicate that any further determinations were warranted. We reviewed a wide sample of inspections carried out, and performed a detailed examination of the two determinations made in the audit period. We considered the results of the concurrent Board compliance audits within the audit area during the audit period, and the following conclusions are applicable.

Conclusions

The determinations were performed fairly, objectively, in a consistent way and were accurately recorded and reported.

Determinations were found to be fair and objective but should be completed more quickly.

MWLAP was not involved in any determinations during the audit period.

4.6 Audit criterion - Agencies establish, through operational plan approval and related processes, expectations for forest practices, which are enforceable, and in accordance with the Code.

Through operational plan approvals and related processes, district managers and designated environment officials establish rules and expectations for licensee performance, which can have a major influence on licensee behaviour. It is important that such expectations are correctly established in accordance with the Code.

The audit assessed whether prescriptions and provisions in approved operational plans (forest development plans and silviculture prescriptions) are clear, unambiguous, enforceable and in accordance with the significant requirements of the Code.

Ministry of Forests

The audit found that the district manager establishes expectations for forest practices through regular meetings and correspondence with licensees, as well as through processes established with licensees, other enforcing agencies, stakeholders and the public.

District planning foresters are responsible for reviewing operational plans prior to their review and approval by the district manager. Their review procedures are primarily office-based and rely significantly on the experience of the prescribing foresters. Operational plans are referred to C&E staff, who are knowledgeable about the areas under the plans, for assessment and verification of accuracy and appropriateness.

Forest officials' compliance inspections generally focus on the implementation of approved operational plans, generally accepting that the approved plans are in accordance with the Code.

Prescriptions and provisions in approved site plans are generally clear and enforceable, as they are sufficiently specific and measurable. The range use plans in place throughout the district do set specific expectations with respect to plant communities, grazing schedules, turnout and removal dates, and acceptable stubble heights. These objectives do appear to be enforceable.

Ministry of Water, Land and Air Protection

MWLAP's role in establishing expectations for forestry practices is limited to providing advice about proposed forest development to licensees and the MOF district manager, field inspection of high-priority sites to verify the appropriateness of site-level plans and providing specialized expertise in water quality and wildlife habitat, when requested by MOF forest officials.

The audit did not identify instances of operational plans not in accordance with the Code, or any situations where ambiguous or unenforceable plans resulted in inappropriate or ineffective enforcement.

Conclusions

The district is generally establishing clear and enforceable expectations for forest and range practices.

MWLAP's role in establishing expectations for forestry practices is limited to providing advice about operational plans, field inspection of only high-priority sites and specialized expertise in water quality and wildlife habitat, when requested.

4.7 Audit criterion - There should be organizational structures, policies and processes that contribute to and support appropriate enforcement of the Code.

Effective organizational structure, policy, management direction and oversight are necessary in order for government agencies to appropriately enforce the Code. The audit assessed whether the organizational model adopted by the agencies supports the effective enforcement of the Code; whether sufficient policy direction exists to guide and support agencies' C&E programs; whether clear and reasonable expectations are set for the operation of the C&E function; and whether the activities of the agencies are adequately monitored and supervised.

In the next section we discuss the coordination and inter-relationships between the agencies. In this section we assess each agency's organizational systems.

Ministry of Forests

Organizational structure

MOF has an established C&E program responsible for assessing compliance with the Code and, where necessary, enforcing the Code. Corporate, regional and district resources have been identified and assigned accordingly. The district organizational model is consistent with other district models that have limited involvement in silviculture and range. However, it differs from other district models in that it focuses on inspecting SBFEP and UTSLs, and the inspection of major licensee harvesting and road activity is not its primary focus.

Changes in the ministry organizational structure were planned at the time of our audit and further changes are expected as the ministry restructuring process continues.

Under the district C&E model in place at the time of our audit, SBFEP staff performed some of their own C&E inspections, although C&E staff perform the majority of the inspections of SBFEP roads and harvesting. When SBFEP staff inspect their own program activities, they are in the conflicting situation of inspecting activities and obligations they are also responsible for supervising. These inspections performed by SBFEP staff are more in the form of supervision rather than C&E inspection. The range and silviculture program staff also perform their own C&E inspections. The district C&E program is involved with all program areas when requested to handle investigations.

The C&E organizational model utilized by the district is not totally efficient or effective. The ministry plans to resolve these conflict situations by restructuring the ministry and districts so that all district C&E is under the responsibility of one independent program area. This should improve the overall efficiency and effectiveness of the C&E program.

The region and the district have developed procedures that address the inherent conflict of interest the district manager has in enforcing activities for which he or she is also responsible. However, these procedures are not being fully implemented, as discussed previously under section 4.3. Regional monitoring of district C&E activities is presently limited to review of activities reported by the district, and meeting regularly with the district to discuss activities and issues.

Policy and management direction

The ministry, region and district all have C&E policy in place. The policies are complete and cover key aspects of C&E, such as inspection planning and conduct, and investigations and determinations.

C&E staff training has been sufficient, considering their responsibilities under the Code, although training is focused at the individual staff level and there is no overall C&E training plan. Staff training plans are reviewed by supervisors, and managers meet regularly to discuss training needs and funds. C&E branch has established an Intranet site containing relevant policy and procedural direction, as well as Code bulletins and other information to support forest officials in fulfilling their Code enforcement responsibilities. The branch has also established training requirements and curricula, and continues to deliver the required training.

The level of supervision provided by C&E management appears to be appropriate. There are regular C&E staff meetings, and management indicates that they review and sign off all inspection reports. This is to monitor inspection performance and consistency and identify any problems. The audit found some instances where C&E management neglected to sign the inspection reports as evidence of their review. Field visits by C&E supervisors and management with C&E staff are being done, but not as frequently as desired. C&E staff have also conducted some field trips with staff from other program areas on matters of joint interest relating to C&E.

Ministry of Water, Land and Air Protection

MWLAP has not established a program specifically responsible for compliance and enforcement of the Code, which limits its need for formal C&E management systems.

Conclusions

The organizational model adopted in the forest district appears to be working as intended for supporting appropriate enforcement of the Code. However, improvement in the model is required to address the conflict-of-interest situations of the SBFEP, range and silviculture programs, where program staff perform some or all of the compliance inspections on the work

they are responsible for supervising. These conflicts weaken the independence and objectivity of the district's C&E program.

The ministry currently has plans to resolve the conflict situations by restructuring ministry programs so that all C&E is under the responsibility of one independent program area.

Sufficient policy and management direction exists, and authority and responsibility within the C&E program is clearly defined and understood. District management has established clear and reasonable expectations for the operation of the C&E program.

Minimum training requirements for staff involved in the C&E program have been identified and provided.

Forest officials are adequately monitored and supervised. Supervisors of forest officials should ensure they sign all inspection reports they review as evidence of their review. Where possible, C&E supervisors and management should conduct more field visits with C&E staff to assess C&E fieldwork.

MWLAP has not established a C&E program or management system.

4.8 Audit criterion - The decisions and actions of different parts of government responsible for enforcement of the Code are appropriate and coordinated.

Interaction at the local offices by agencies responsible for enforcing the Code is necessary to prevent significant gaps in enforcement. The audit assessed whether respective roles, responsibilities and interactions are defined, agreed and documented; whether communication and referral within and between agencies takes place and is coordinated and effective; and whether there are any significant gaps in enforcement or duplication of agency effort.

MOF and MWLAP have primary responsibility for Code enforcement in the area audited, as there was no mining activity. MOF takes the lead enforcement role, consistent with its primary responsibility for administration of the Code.

The 1995 provincial memorandum of understanding (MOU) among the three principle ministries jointly administering the Code sets out the roles, responsibilities and interactions within and amongst them. These have been defined, agreed upon and documented. However, due to organizational changes within government over the last few years, these agreements are not being implemented. Instead, they are used more as guidance.

MWLAP is not actively enforcing the Code, which weakens Code enforcement of the areas under its responsibility. MWLAP efforts are primarily focused on reviewing proposed forest development plans and providing comments to licensees and to the MOF to help adequately manage and conserve forest resources. Once operational plans are approved, MOF takes the lead C&E role.

MOF and MWLAP work on Code enforcement in an informal manner. Ad hoc referrals are made between MOF and MWLAP. Although communication is informal, the agencies indicate that it works well. The interaction within and between agencies was evident from our discussions with MOF and MWLAP staff.

Given the ongoing informal communications between the agencies, and considering the policy framework to address forest resource values is reasonably extensive, the lack of MWLAP presence in C&E within the audit area may not be a serious weakness at this time. However, without MWLAP regularly conducting field inspections to validate the accuracy and appropriateness of site-level operational plans for fish, wildlife and water resources, some weakness remains.

While there does not appear to be duplication of effort, MWLAP's lack of enforcement results in a gap in enforcement of the Code. At present, MOF district enforcement efforts are not focused on areas falling under MWLAP's direct responsibility.

Conclusions

The decisions and actions of MOF and MWLAP are not formally coordinated, despite an existing MOU between the agencies. Improvement is required by revising the roles, responsibilities and interactions by the principal agencies jointly administering the Code. Because the MOU has not been completely implemented by the agencies, and MWLAP has not completed its framework, some weakness remains in the compliance and enforcement of the Code.

While MWLAP provides sufficient input into operational plans and referrals, not enough information is available to MWLAP about the results of forest and range practices on fish and wildlife resources. While no specific issues were identified within the audit area, this constitutes a significant gap in government's enforcement of the Code.

4.9 Audit criterion - Reporting systems provide adequate information on agency performance in relation to enforcement objectives.

In order to ensure the effectiveness of C&E, agencies need to be able to judge their performance by establishing objectives and intended outcomes, and then measuring performance through the use of performance indicators and reliable reporting systems. The audit assessed whether objectives for enforcement are established and consistent with government direction, and whether measurable targets or performance indicators are in place and being used to evaluate performance in relation to strategic objectives.

Ministry of Forests

In 2001, measurement of district C&E performance was not formal. For 2002/03, the ministry required more formal performance measurement for district C&E programs. Accordingly, the district set four main performance measures in the district service plan to assess its C&E performance:

1. A target of 90 percent of forest operators in compliance with environmental standards.
2. A total of 350 inspections in accordance with compliance procedures.
3. Inspection of 80 percent of the high priority sites.
4. The total number of sites identified as high priority. This target is still to be established by the district.

The achievement of performance measures was to be monitored and reported quarterly by districts to headquarters management. However, the first quarter report (April to June 2002) on district C&E performance had not been prepared at the time of the audit. During the audit period, the district relied on less formal methods to assess the performance of its C&E activities, such as the number of non-compliances identified, the number of public complaints made and investigations initiated, and whether C&E staff workloads were being met.

In April 2002, the ministry substantially implemented its compliance information management system (CIMS). This enabled MOF to assist districts and regions in monitoring and assessing the performance of the C&E program, as well as the ability to assist forest officials in planning and fulfilling their Code enforcement responsibilities. However, the CIMS inspection information system has encountered implementation problems, and the reliability of reported data is currently being addressed. It appears that once the CIMS system and its reporting modules are fully implemented, it will include functional reporting capabilities to allow forest officials and ministry managers to monitor and assess program performance.

The ministry is still developing C&E performance measures and is assessing whether the measures developed so far are measurable and whether the data they require can be obtained. While the current performance measures used are objective, verifiable and attainable, they are still under development. We encourage the ministry in its continued development of C&E performance measures that are clearly linked to measuring the achievement of the stated C&E program objectives.

The ministry's stated objective for the C&E program is to promote compliance with the Code. C&E branch is responsible for assessing the performance of the C&E program as a whole, and reporting results to the public. The results of C&E activities, and achievement of program objectives, have not been assessed or reported publicly by the ministry since March 2000.

One area for improvement was identified. The CIMS public reporting module reports information based on the number of inspections conducted and the percentage of inspections with no non-compliance findings. More meaningful information should be reported to the

public, such as the rate of non-compliance in relation to the level of activity for each major program area. For example, pending public reports would state that 10,000 inspections were conducted, and in 9,600 of them, practices were found to be in compliance. It would be more meaningful to report that 3,700 harvesting sites were inspected and in 3,590 sites, harvesting practices had been conducted in accordance with the Code.

Ministry of Water, Land and Air Protection

MWLAP's current involvement in Code compliance and enforcement limits the need for reporting of its C&E performance.

Conclusions

The performance of the forest district's C&E program has not been formally evaluated by the ministry. However, district management has informally assessed its C&E performance.

The CIMS implementation problems need to be addressed by the ministry so that the information required by the district to prepare its quarterly C&E performance reports will be available.

C&E performance measures are currently under development by the ministry. These measures should be clearly linked to measuring the stated C&E program objectives.

Public reporting by the ministry of C&E program performance requires improvement so that more meaningful performance information is reported. The ministry should also publicly report on its C&E performance for 2001 and 2002.

MWLAP does not report its C&E performance due to its limited C&E role.

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[i] A forest development plan is an operational plan that provides the public and government agencies with information about the location of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect forest resources. It must also be consistent with any higher-level plans. Site-specific plans are required to be consistent with the forest development plan.

[ii] A silviculture prescription is a site-specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). The silviculture prescriptions examined in the audit are required to describe the management activities proposed to maintain the inherent productivity of the site, accommodate all resource values, including biological diversity, and produce a free-growing stand capable of meeting stated management objectives. Silviculture prescriptions must be consistent with forest development plans that encompass the area to which the prescription applies.

[iii] A higher level plan is a forest resource management objective that is established as legally binding by a written order. The objective applies to a resource management zone, landscape unit, sensitive area, recreation site, recreation trail, or interpretive forest site. Higher-level plans are a provision of the *Forest Practices Code of British Columbia Act* that gives direction to operational plans.

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